

EEEEEEEEE XX XX AAAAAAA MM MM PPPPPPPP LL EEEEEEEEEE SSSSSSS
EEEEEEEEE XX XX AAAAAAA MM MM PPPPPPPP LL EEEEEEEEEE SSSSSSS
EEEEEEEEE XX XX AAAAAAA MM MM PPPPPPPP LL EEEEEEEEEE SSSSSSS
EE XX XX AA AA MMMM MMMM PP PP LL EE SS
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EEEEEEEEE XX AA AA MM MM PP LLLLLLLL EEEEEEEEEE SSSSSSS
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EEEEEEEEE XX AA AA MM MM PP LLLLLLLL EEEEEEEEEE SSSSSSS

FILEID**MAILCOMPRESS

H 16

M	M	AAA	III	L	CCCC	000	M	PPP	RRR	EEE	SSS	SSS
M	M	AAA	III	L	CCCC	000	M	PPP	RRR	EEE	SSS	SSS
MM	MM	A	A	L	CCCC	000	MM	P	R	E	S	S
MM	MM	A	A	L	CCCC	000	MM	P	R	EE	S	S
MM	MM	A	A	L	CCCC	000	MM	P	R	EE	SS	SS
MM	MM	A	A	L	CCCC	000	MM	PPP	RRR	EEE	SSS	SSS
MM	MM	A	A	L	CCCC	000	MM	PPP	RRR	EEE	SSS	SSS
MM	MM	AAAAA	A	L	CCCC	000	MM	P	R	E	S	S
MM	MM	AAAAA	A	L	CCCC	000	MM	P	R	EE	SS	SS
MM	MM	A	A	L	CCCC	000	MM	P	R	EE	SS	SS
MM	MM	A	A	LLL	CCCC	000	M	P	R	EEE	SSS	SSS
M	M	A	A	LLL	CCCC	000	M	P	R	EEE	SSS	SSS
										

CCCC	000	M	M
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C	0	MM	MM
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CCCC	000	M	M
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++
MAILCOMPRESS.COM - Compress mail file by username

ABSTRACT: Sample command procedure to compress
MAIL ISAM files for a single user
or list of users.

REQUIRED PRIVILEGES:
BYPASS, EXQUOTA or SETPRV

INPUT: Input can be specified in two forms:

- o Username whose default MAIL ISAM
file is to be compressed.
- o @FILENAME where FILENAME is the
file-spec of a file which contains
a list of usernames whose default
MAIL ISAM files are to be compressed.

Either form of input may be specified
on the command line. However, if
"@FILENAME" is specified on the command
line it MUST be enclosed in double
quotes.

OUTPUT: New default MAIL ISAM file of a smaller
size.

IMPLICIT OUTPUT:
Old default MAIL ISAM file is deleted.

--
set = "SET"
if = "IF"
open = "OPEN"
goto = "GOTO"
read = "READ"
write = "WRITE"
convert = "CONVERT"
delete = "DELETE"
close = "CLOSE"
exit = "EXIT"
no_compression_needed_size = 40
time_stamp = f5cvtime?:"", "COMPARISON", "DATETIME")

```
old_verify = f$verify()
set noon
required_privileges = "BYPASS,EXQUOTA"
prev_privs = f$setpriv(required_privileges)
if .not. f$privilege(required_privileges) then goto no_privileges
def_dev_dir = f$environment("DEFAULT")
open /read /share uaf sys$system:sysuaf.dat
open /read /share vmai sys$system:vmsmail.dat
cmd_file = 0
param_flag = 0
if f$length(p1) .eq. 0 then goto get_username
username = p1
param_flag = 1
goto T0$  

: Prompt for username
get_username:
open_delimit = "["
close_delimit = "]"
dir_close_delimit = "]"
if cmd_file then goto 20$
if param_flag then goto exit_procedure
read /end=exit_procedure /prompt="Username: " sys$command username
10$:
username = f$edit(username,"COLLAPSE,UNCOMMENT,UPCASE")
if f$length(username) .eq. 0 then goto get_username
if f$extract(0,1,username) .ne. "@" then goto 100$
cmd_file = 1
username = f$extract(1,99,username)
open /read /error=cant_open cmdf 'username'
20$:
read /end=cmd_file_eof /prompt="USERNAME> " cmdf username
username = f$edit(username,"COLLAPSE,UNCOMMENT,UPCASE")
if f$length(username) .eq. 0 then goto 10$  

: Get mail directory for USERNAME
100$:
read /nolock /error=no_user /key=""username"" uaf uaf_record
dir_len = f$cvui(32*8,8,uaf_record)
dir_string = f$extract(149,dir_len,uaf_record)
temp_string = f$edit(dir_string,"COLLAPSE")
if temp_string..eqs. "" then goto bad_spec
if f$locate("[",dir_string) .ne. dir_len then goto okay_delimit
dir_close_delimit = ">"
okay_delimit:
dir_string = dir_string - dir_close_delimit
dev_len = f$cvui(64*8,8,uaf_record)
dev_string = f$extract(117,dev_len-1,uaf_record)
temp_string = f$edit(dev_string,"COLLAPSE")
if temp_string..eqs. "" then goto bad_spec
vmai_record = ""
mail =
read /nolock /error=110$ /key=""username"" vmai vmai_record
110$:
```

```

if f$length(vmai_record) .eq. 0 then goto 120$
mail_len = f$cvui(65*8,8,vmai_record)
personal_len = f$cvui(66*8,8,vmai_record)
forward_len = f$cvui(67*8,8,vmai_record)
mail = f$extract(68+personal_len+forward_len,mail_len,vmai_record)
if f$locate("[",mail) .ne. mail_len then goto 120$
open_delimit = '<'
close_delimit = '>'

120$:
temp = ""
if mail .nes. "" then temp = mail - open_delimit - close_delimit
mail_dir = dev_string + dir_string + temp + dir_close_delimit
mail_dir = f$edit(mail_dir,"COLLAPSE")
write sys$output
write sys$output "Processing directory '"mail_dir' for user '"username"'

! Compress mail file

set default 'mail_dir'
if f$search('MAIL.MAI') .eqs. "" then goto no_mail_file
create_time = f$file_attributes('MAIL.MAI',"CDT")
create_time = f$cvttime(create_time,"COMPARISON","DATETIME")
if create_time .gts. time_stamp then goto already_compressed
VERIFY THERE'S A MAIL.MAI FILE, THAT IT'S INDEXED WITH 2 KEYS.
CHECK TO SEE THAT DISK HAS ENOUGH SPACE FOR THE COMPRESS.

if (f$file_attributes('MAIL.MAI',"ORG") .nes. "IDX") .or. -
(f$file_attributes('MAIL.MAI','NOK') .ne. 2) -
then goto not_mail_file
old_size = f$file_attributes('MAIL.MAI', "ALQ")

VERIFY THAT MAIL.MAI IS LARGE ENOUGH TO WARRANT
COMPRESSION.
if old_size .lt. no_compression_needed_size then $goto too_small
free_blk = f$getdvi("SYSSDISK","FREEBLOCKS")
if free_blk .lt. old_size + 3 then goto no_space
COMPRESS THE FILE, STOP IF ERROR.
DISPLAY OLD/NEW/RECLAIMED SIZES, DELETE OLD FILE, ENSURE CORRECT
FILE OWNERSHIP.

convert /fdl=sys$input mail.mai mail.mai

SYSTEM SOURCE VAX/VMS

FILE
  ALLOCATION          34
  BEST TRY CONTIGUOUS yes
  BUCKET SIZE          5
  CONTIGUOUS           no
  EXTENSION            15
  GLOBAL BUFFER COUNT  0
  ORGANIZATION         indexed
  PROTECTION           (system:RW, owner:RW, group:, world:)
```

RECORD

BLOCK_SPAN	yes
CARRIAGE_CONTROL	none
FORMAT	variable
SIZE	2048

AREA 0

ALLOCATION	20
BUCKET_SIZE	5
EXTENSION	15

AREA 1

ALLOCATION	6
BUCKET_SIZE	5
EXTENSION	5

AREA 2

ALLOCATION	8
BUCKET_SIZE	3
EXTENSION	3

KEY 0

CHANGES	no
DATA_KEY_COMPRESSION	no
DATA_RECORD_COMPRESSION	yes
DATA_AREA	0
DATA_FILL	100
DUPLICATES	yes
INDEX_AREA	1
INDEX_COMPRESSION	no
INDEX_FILL	100
LEVELT_INDEX_AREA	1
NAME	...
NULL_KEY	no
PROLOG	3
SEGO_LENGTH	8
SEGO_POSITION	0
TYPE	bin8

KEY 1

CHANGES	yes
DATA_KEY_COMPRESSION	yes
DATA_AREA	2
DATA_FILL	100
DUPLICATES	yes
INDEX_AREA	2
INDEX_COMPRESSION	yes
INDEX_FILL	100
LEVELT_INDEX_AREA	2
NAME	...
NULL_KEY	yes
NULL_VALUE	0
SEGO_LENGTH	39
SEGO_POSITION	9
TYPE	string

```
$      if $status .ne. 1 then goto convert_error
$      new_size = f$file_attributes('MAIL.MAI;0', 'ALQ')
$      tmp = old_size - new_size
$      write sys$output 'Old size = ''old_size' New size = ''new_size'', -
$                          " reclaimed ''tmp' blocks"
$      delete MAIL.MAI;-1
$      set file/owner=parent MAIL.MAI
$ end_loop:
$      goto get_username
$ 
$      Exit command procedure
$ 
$ exit_procedure:
$      close /nolog uaf
$      close /nolog vmai
$      close /nolog cmdf
$      set default 'def dev_dir'
$      prev_privs = f$setpriv(prev_privs)
$      old_verify = f$verify(old_verify)
$      exit
$ 
$      Process errors
$ 
$ no_privileges:
$      write sys$output "Insufficient privileges"
$      write sys$output "Requires ",REQUIRED_PRIVILEGES," privileges."
$      goto exit_procedure
$ no_mail_file:
$      write sys$output 'No mail file for user ''username''
$      goto get_username
$ not_mail_file:
$      write sys$output 'File ''mail_dir'MAIL.MAI is not a mail file'
$      goto get_username
$ convert_error:
$      write sys$output 'Error compressing ''mail_dir'MAIL.MAI ', -
$                          "for user ''username''
$      goto get_username
$ cmd_file_eof:
$      cmd_file = 0
$      close cmdf
$      goto get_username
$ no_user:
$      write sys$output 'User ''username' not found in UAF'
$      goto get_username
$ bad_spec:
$      write sys$output 'Bad directory specification for user ''username''
$      goto get_username
$ no_space:
$      write sys$output 'No space to compress file of ''old_size' blocks'
$      goto get_username
$ cant_open:
$      write sys$output "Can not open file ''username''."
$      cmd_file = 0
$      goto get_username
$ already_compressed:
$      write sys$output 'MAIL.MAI already compressed'
```

```
$      goto get_username
$ too_small:
$      write sys$output "MAIL.MAI too small to compress (''old_size' blocks)."
$      goto get_username
$ exit
```

0158 AH-BT13A-SE
VAX/VMS V4.0

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